MASSAGE METHODS FOR PSYCHOEMOTIONAL RECOVERY IN FEMALE ATHLETES

Andonova Tatyana, Kraydjikova Leyla, Peeva Penka, Nikolovska Lenche

Address for correspondence:
Head ass. Tatyana Andonova - National Sports Academy “Vassil Levski”, department "Sports Medicine and Massage», taniaandonova@yahoo.com
Assoc. prof. Leyla Kraydjikova, Ph.D. - National Sports Academy “Vassil Levski”, department "Sports Medicine and Massage», leylakr@abv.bg
Assoc. prof. Penka Peeva, Ph.D. - National Sports Academy “Vassil Levski”, department "Heavy athletics, boxing, fencing and sport for all», pepi55peeva@yahoo.com
1700, Students Town, Sofia, Bulgaria
Lenche Nikolovska – Univercity “Goce Delchev”, Stip, Macedonia

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Modern sport is associated with greater physical, neuro-psychological and emotional stress, which requires adequate recovery [5].
The effect of application of lymph drainage massage of Pascal Coshe [4] recovery in athletes has been studied in our earlier investigation [1,2]. Its impact on psyhoemotional status of athletes have not been studied up to now.
Balancing massage techniques are known for their relaxing beneficial impact on people under stress in modern life. Balancing massage is a widespread practice in the Spa, but its role in the psychoemotional recovery of athletes is not understood yet.
The SCAM test based on the fact that the three constitutes of the functional psychoemotional status - self-confidence, activity and mood was used for the assessment of the influence of the two massage techniques [3].

The **purpose** of this study was to examine and compare the effect of two massage techniques on the psyhoemotional status in female athletes - lymph massage and balancing massage.

The **tasks** that we set were:
A. To investigate the effect of the application of lymph drainage massage on athletes.
2. To investigate the effect of the balancing massage on athletes.
3. To compare the effects of the two massage techniques for the recovery of psychoemotional status in athletes.

Methods

The object of this study were 40 female students, fourth year in the Sports Faculty of NSA. They were divided into two groups – experimental and control. The first group had an average age of 21,89 and sports experience of 10,33, and the second one - average age of 22,36, and of 9,73sports experience.
The experimental group of 18 students was applied a balancing body massage, and the control group of 22 students was applied an overall lymphatic drainage.
The method of lymph massage involved draining regional lymph nodes, the technique of absorbtion, insayting and implemented in different parts of the body. The massage was carried out using the method of Pascal Coshe [4].

Balancing massage is performed in slow temp and rhythm. It is widely represented as massage techniques with a long line, comprising more than one area, and techniques in the form of number eight. In it the percussion techniques are excluded.
Before and after each massage the investigated person had to complete the SCAM test consisted of three separate indicators - confidence, activity and mood. The average score on each scale allows to graduate in three functional levels the psychoemotional status of the individual at a given moment: 1 to 3 - low score, of 3 to 5 – average score and over 5 – high score.
For statistical procession of the results a software SPSS was used. Descriptive analysis was used. To determine the statistical confidence of differences in the results Wilcoxon and Mann-Whitney ratios with level of significance $\alpha = 0,05$ were used.

Results and analysis

Mean values of two of the studied indicators in the control group at the beginning of the experiment show a high initial level of "self confidence", while "mood" and "activity" has an average score (Table 1).
The average value of one of the research criteria "mood" in the experimental group at the beginning of the experiment shows a high initial level, while the other two - "self confidence" and "activity" have an average score.
The highest average values has the scale "mood" in the control group ($\bar{x} = 5,41$) and the lowest ones - that of the "activity" in the experimental group.($\bar{x} = 4,29$).
Indicators discussed in both groups are with an average dispersion of the trait. Statistically significant difference in the initial state of the three indices between the two groups was not observed.
The mean values of the three indicators measured at the end of the experiment in both groups are highly rated. The highest level is in the scale "mood" ($\bar{x} = 5,85$) in the control group and relatively lowest one - that of "activity" ($\bar{x} = 4,99$) in the same group. Extracts of the three attributes evaluated in both groups at the end of the experiment were approximately uniform. Statistically significant difference in the condition of the three indices between the two groups at the end of the experiment was not observed.
At the end of the experiment in both groups the assessment scores were increased in the three studied indicators. Numerical values of their growth are illustrated in Fig. 1.
In the control group a statistically significant difference between initial and final index score was found for the "self confidence" and the "mood". Both of them show great increase and statistically significant growth: in the first $d = 0,46$, while in the second $d = 0,44$. In the third scale, there was no statistically significant difference. Its growth rate is moderate ($d = 0,3$) and statistically unreliable.
In the experimental group a statistically significant difference between initial and final assessment scores in the two studied indicators - "activity" and "mood" was found. Both of them show great increase and statistically significant growth: in the first $d = 0,97$, while in the second - $d = 0,46$. In the third scale - "self confidence" - no statistically significant difference in improvement was found. Its growth rate is moderate ($d = 0,18$) and statistically unreliable.
Statistically significant ($\alpha = 0,05$) greater increase in the indicator "self confidence", reflecting the strength, health and fatigue was observed in the control group. In the experimental group statistically significant ($\alpha = 0,001$) and greater increase was established in the indicator "activity" which characterizes agility, speed and pace of the ongoing functions.
In the third indicator "mood", the improvement in both groups did not differ statistically.

Conclusion and Recommendations

After the experiment both types of massage increase the assessment scores of “confidence”, “activity” and “mood” which are moderately high. In the control group a greater increase in the indicator "self confidence", reflecting fatigue, was established. In the experimental group a better balance in the assessment scores of the three attributes was observed. That was expressed in a small difference between them. Probably that fact is due to the pronounced somatophysiological effect of the lymph massage, and to the stronger effect on the psyhoemotional status of the balancing massage.
For further investigation we recommend more than one procedure to be done and its effect to be observed not only immediately after the massage but a few hours after it.

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Table 1

SCAM test results of both groups at the beginning and the end of the experiment

		At the beginning					At the end				
		X min	X max	$\overline{X}$	S	V	X min	X max	$\overline{X}$	S	V
Experimen-tal group	Self condit.	2,70	6,20	4,94	1,21	24,53	3,70	6,60	5,12	1,14	22,35
	Activity	2,80	6,10	4,29	1,20	27,94	3,60	7,00	5,26	1,19	22,65
	Mood	2,30	6,60	5,10	1,50	29,50	2,80	6,80	5,56	1,34	24,18
Control group	Self condit.	4,3	6,5	5,18	0,54	10,46	3,9	6,5	5,64	0,68	12,04
	Activity	3,4	5,5	4,69	0,59	12,63	3	6,3	4,99	0,97	19,46
	Mood	3,4	6,8	5,41	0,98	18,20	4,6	7	5,85	0,76	12,92

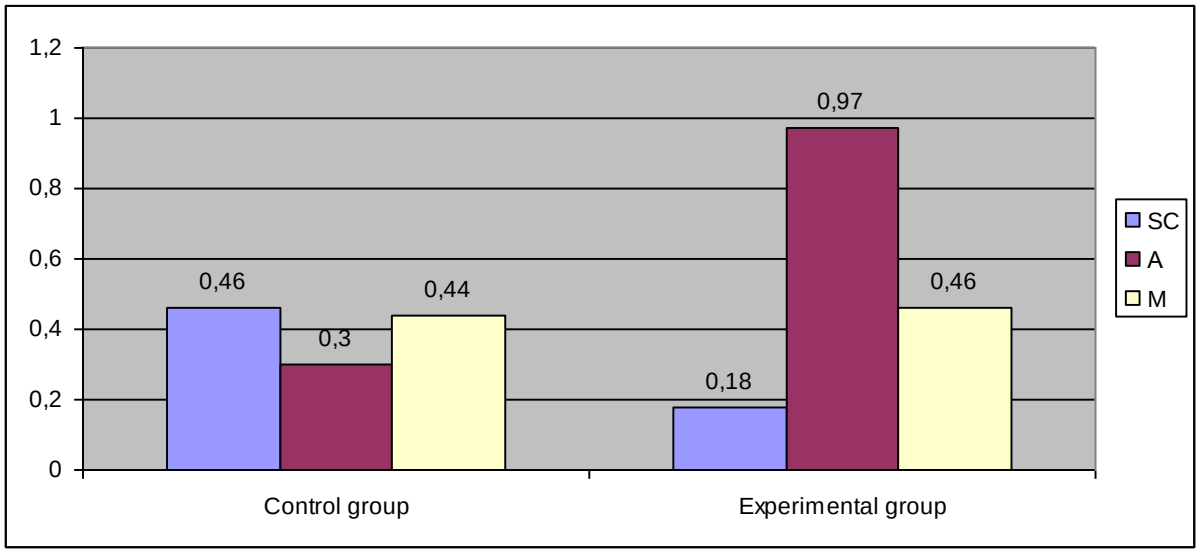

Fig. 1. Growth in SCAM performance test in both groups